

FAYETTE COUNTY'S EXPERIENCE WITH WATERSHED PROTECTION ORDINANCES

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Fayette County is largely recognized as a residential community providing an easy commute for airport and metropolitan Atlanta workers. Its attractiveness as a bedroom community also places it in the middle of the southern metropolitan Atlanta building frenzy. The rapid growth experienced by Fayette County places it fifth among the fastest-growing counties in the United States in this decade (Atlanta Journal and Constitution, October 13, 1988).

Providing a high quality water supply to this new development is essential. The protection of this water supply from pollution as a result of development is also essential.

Fayette County is now on its second Watershed Protection Ordinance, with more amendments likely to come. This paper summarizes Fayette County's experience in balancing development with a high quality water supply through watershed protection ordinances.

QUALITY WATER SUPPLY

The influx of development and new citizens requires services be extended to accommodate this growth. Primary among the services required is a high quality water supply.

Local Water Sources

The Fayette County Water System provides water services to those residents within its service area. This service area includes the municipalities of Peachtree City and Tyrone, and most of unincorporated Fayette County. The Fayette County Water System sells water to the City of Fayetteville on a wholesale basis. The City of Fayetteville maintains a separate service area and water department.

Approximately 86% of Fayette County residents are served, in some fashion, by the Fayette County Water System. The System relies primarily on surface water from local streams to supply raw water for treatment. The remaining Fayette County residents rely on wells for their water supply.

Protection of Local Water Supply

The protection of this local surface water from pollution as a result of development was paramount in the adoption of the county's first watershed protection ordinance in May 1987. This ordinance was considered one of the state's most comprehensive for protecting surface water. Locally, it was also considered restrictive and overly protective, requiring the same level of protection for all streams and tributaries.

A second ordinance was adopted in October 1988. Considered somewhat less restrictive than the first, it classifies streams according to type of stream. Streams are designated as major water supply streams or as tributaries and streams, either named or unnamed. Allowable developmental densities depend on proximity to particular stream classifications and/or reservoirs.

The following sections discuss the problems and peculiarities with each of the two ordinances. The last section will discuss Fayette County's plans for future ordinance(s).

ORDINANCE ADOPTION

Fayette County adopted its first Watershed Protection Zoning Ordinance on May 28, 1987. The Ordinance was prepared by Fayette County as part of its program for developing water supply reservoirs within the county and as a vehicle for protecting the potable water of the county.

In the ordinance, Watershed Protection Areas were "identified, classified and regulated for the purpose of insuring the preservation and improvement of water quality and for complying with laws of the State of Georgia" (Fayette County, 1987). The ordinance applied the restrictions to "all streams, including intermittent streams, which appear on a USGS 7.5 minute quadrangle map" (Fayette County, 1987).

Model Ordinance, But Strict

At the time of its adoption, the Watershed Protection Zoning Ordinance was considered one of the most strict watershed protection ordinances in the state. The ordinance was considered to be

more strict than required by the Department of Natural Resources (DNR). Conservative estimates had the degree of useable land affected by the ordinance ranging from 15% to 20% of the county (Fayette Sun, October 6, 1988). Development more dense than five acre lots in this affected area was prohibited. The ordinance was believed to be particularly restrictive to owners of large tracts of land containing any stream. So much land was affected by the ordinance that many land owners and developers could not financially afford to develop their land.

Ordinance Regulations

The division of fewer than three parcels required minimum three acre lots, a natural buffer of 500' from the centerline of the stream or equal to the 100 year floodplain, whichever was greater, and a minimum setback of 50' from the natural buffer. Subdivisions consisting of three or more lots were required to meet standards within a specified distance from the stream bank or reservoir, depending on lot size. For example, if the minimum platted lot size was less than two acres, all lots within 1000' of a stream bank or reservoir were required to be a minimum of five acres with a natural buffer of 500' from the centerline of the stream or equal to the 100 year floodplain, whichever was greater, and a minimum setback of 50' from the natural buffer.

For larger platted lot sizes, the distance requirements from the stream bank, the minimum lot size and the natural buffer areas were reduced. For example, if the minimum platted lot size was three acres, all lots within 500' of a stream bank or reservoir were required to be a minimum of three acres with a natural buffer of 300' from the centerline of the stream or equal to the 100 year floodplain, whichever was greater, and a minimum setback of 50' from the natural buffer. Commercial and industrial development on any stream or reservoir required a five acre minimum lot size.

Controversy Grows

Controversy surrounding the ordinance continued to grow. The number of building permits issued dropped by one-third the previous year's numbers. The number of residential building permits issued in unincorporated Fayette County in 1986 and 1987 was 802 and 907, respectively. In 1988, the number of residential building permits issued dropped to 585. Developers simply could not assemble the number of lots necessary to realize a return on their projects. Developers then began seeking annexation into Fayetteville and other county municipalities which did not have such a strict watershed protection ordinance.

ORDINANCE REVISION AND ADOPTION

Less than one year from the date of adoption, the Fayette County Board of Commissioners began the process of revising the Watershed Protection Ordinance. The new ordinance, adopted October 13, 1988 and currently in force, attempts to protect water sources from pollution by restricting the density of development in the vicinity of streams, tributaries and reservoirs. A major difference between the revised ordinance and the original is that the streams are divided into three classifications: major water supply streams, tributaries to major water supply streams, and minor unnamed streams that "continuously flow to major streams or named tributaries to a major stream" (Fayette County, 1988).

Different restrictions apply depending on the classification of stream and/or proximity to a reservoir. For example, the revised Watershed Protection Ordinance requires three acre minimum lots and a 100' buffer within 1000' of a reservoir. The original ordinance required five acre minimum lots and a buffer of 500' or the 100 year floodplain, whichever was greater, within 1000' of a reservoir. Estimates place the affected area at 12% to 14% of the county under this revised ordinance.

Commercial and industrial development is allowed along tributaries and minor unnamed streams, but such development is prohibited on major water supply streams or reservoirs. Essentially, the further away from the major water supply stream, the less restrictions apply. This is true for both residential and non-residential development.

Ordinance Pros and Cons

The current ordinance is uniform and effective, requiring little advanced engineering. It serves to grant some relief to affected property owners by reducing the setback requirements. It is also endorsed by the DNR.

This latest Watershed Protection Ordinance is not without its detractors, however. Citizens are still concerned with erosion and pollution destroying Fayette County creeks. Any reduction in minimum lot sizes and setbacks from creeks and floodplain is considered too much.

Because of the reduced setback requirements, the new ordinance provides for more development. With more development, land is stripped of its natural cover and exposed. The uncovered soil is dislodged and washes into the water, thereby affecting water quality.

The new ordinance is land intensive and does not address the different sources of non-point pollution. It also does not account for site conditions and design considerations in the calculation of water quality impact (Rader, 1988).

RECOMMENDATIONS FOR FUTURE ORDINANCE

While the revised Watershed Protection Ordinance granted some relief to affected property owners, especially those on a major water supply stream, concerns remain. The revised ordinance, as stated previously, is inadequate in protecting water supplies from certain impacts of development (e.g. stormwater runoff). The lack of justifiable standards and the difficulty of administration remain.

Threat To Water Quality

The immediate threat to water quality in Fayette County is development-related erosion and sedimentation. The long-term challenge is containment of urban runoff. A solution to urban runoff is infiltration of stormwater. The rate and amount of infiltration varies from site to site, however, depending on the site's soil, topography, etc.

It is possible to specify broad enough uniform requirements to accomplish the goal of watershed protection under most site conditions. This is the current approach adopted by Fayette County. However, such a uniform regulation will, by necessity, employ a worst case scenario and may not use the most effective methods available (Rader, 1988). Alternative, and perhaps more effective methods, could include, (1) establishing performance standards that would require 100% of the first "x number" of inches of rainfall be infiltrated on site; or, (2) establishing a point system assigning points to site characteristics and development techniques. A minimum number of points would be required to develop.

Problems With Existing Ordinances

Because of the concerns still surrounding the current ordinance, Fayette County Planning Staff has been directed by the Fayette County Board of Commissioners to begin investigation into alternative methods for watershed protection. Current ordinances found in other areas generally contain the same problems experienced by Fayette County. These ordinances rarely encourage developers to take action to protect existing water sources (North Carolina Department of Natural Resources, 1987). In the case of Fayette County's ordinances, the standards established countywide did not rely on research or scientific evidence for the imposition of those standards. For example, why is a three acre minimum preferred over a two acre minimum? What is the 500' required distance from a reservoir based on, if anything? These are questions Fayette County will deal with as it develops a new watershed protection ordinance.

Alternative Approaches

It is recognized that a primary threat to water quality is development-related urban runoff. Man's activities greatly influence the amount and type of pollutant runoff that enters water supply streams. If the pollutants are prohibited from entering the streams in the first-flush of rainfall by an infiltration technique or through erosion controls, a major advance would be made.

The problem is the variability of conditions from site to site. What may be a reasonable requirement for one parcel or development project, may be ineffective for the next. New ordinances could adopt a parcel-by-parcel approach to watershed protection, rather than the blanket approach currently used by Fayette County.

Summary

Without a good water supply, an urban area is limited in its ability to grow. Sources of drinking water must be protected now before permanent damage is done. Any new watershed ordinance adopted by Fayette County will examine the water quality of Fayette County streams and tributaries. It will consider the implications of development within watershed areas and the effect of such development on water quality. Whatever form a new ordinance takes, it will enforce better control of water entering the streams and tributaries in Fayette County.

Because of the demands for development and subsequent demands for service, it is important that Fayette County maintain its momentum in this emerging watershed protection field. Through an evolution of watershed protection ordinances, it is the desire of Fayette County to strike that delicate balance between development and water quality.

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